

REMARKS

The independent claim 1 has been amended to sharpen the definition of the invention and to prevent any unintended reading of the claims on the prior art applied in the outstanding Official Action.

Claims 18-25 are indicated on the cover sheet of the Official Action as having been withdrawn from consideration; however, in applicant's previous response, the restriction requirement was specifically traversed, on a number of articulated grounds. Those grounds for traverse are not addressed by the outstanding Official Action, neither does the Official Action expressly make final the restriction requirement. It is therefore believed that claims 18-25 should be rejoined upon the allowance of claims 1-17, especially inasmuch as claims 18-25 all depend, directly or indirectly, from claim 1.

Claims 1-10, 13 and 15-17 were rejected as anticipated by KAZMER 6,287,107, Claims 11 and 12 were rejected as obvious over KAZMER in view of BIERMANN 7,114,934, and Claim 14 was rejected as obvious over KAZMER in view of FUKUHARA 6,328,316. Those rejections are respectfully traversed, for the following reasons.

In all of the relevant embodiments of KAZMER, e.g., Figs. 7-10, the continuous cone-shaped taper 95 serves both to vary the flow rate and to seal the valve. This gives rise to

precisely the disadvantages discussed at p. 4, lines 8-16 of the present specification:

Complete closure of the valve is assured by a quasilinear circular contact between the closure shoulder of the needle and the seat of the body [i.e., the present invention], rather than a surface contact between the tip of the needle itself and the interior surface of the body [i.e., prior art such as KAZMER]. Surface contact would create a flattening effect with local shearing and overpressurization of the material, encouraging the appearance of microbubbles or syrup effects, primarily on opening the valve.

By contrast, in the present invention, the quasilinear circular contact made by the closure shoulder when contacting the seat, together with the flow-varying projection presenting a surface distinct from that of the shoulder, help to achieve the objective of more uniform and defect-free filling of the mold cavity, at acceptable production rates.

These important distinctions between the present invention and KAZMER are better reflected in the amended claim 1, by the language specifying that the projection is distinct from the shoulder (as shown in the Figures), and that the shoulder (43) is shaped so as to contact the seat and close the valve about a quasilinear circular contact (see, e.g., the passage quoted above).

It is therefore believed to be apparent that none of claims 1-10, 13 and 15-17 is anticipated by KAZMER, and that this rejection should be withdrawn.

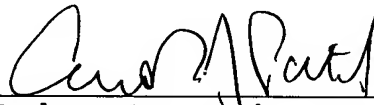
The rejections of the dependent claims 11, 12 and 14 are believed also to be overcome, as the secondary references were relied upon solely for features that do not bring KAZMER closer to the invention as now recited in the amended claim 1.

In view of the present amendment and the foregoing remarks, therefore, it is believed that this application is now in condition for allowance, with claims 1-25, as amended. Allowance and passage to issue on that basis are accordingly respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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